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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---|------------------|
| 10/796,231 | 03/09/2004 | Marc Husemann | tesa 1649-WCG | 2181 |
| 27386 7590 04/25/2007 NORRIS, MCLAUGHLIN & MARCUS, P.A. 875 THIRD AVE 18TH FLOOR NEW YORK, NY 10022 | | | EXAMINER WYROZEBSKI LEE, KATARZYNA I | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1714 | |

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 04/25/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/796,231 | HUSEMANN ET AL. | |
| | Examiner | Art Unit | |
| | Katarzyna Wyrozebski | 1714 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

In view of applicant's request for continuing prosecution following office action is first non-final. The prior art of record has been reconsidered and rejections are re-stated as follows.

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-4,6-8, 10-13, 18-27, 31, 32 are rejected under 35 U.S.C. 102(b) as being anticipated by PARSONS (US 5,851,663).

The prior art of PARSON discloses flame retardant pressure sensitive composition and tape comprising the adhesive. Composition comprising rubber resin, acrylic resin and non-halogenated flame retardant. Substrates are both woven and non-woven.

Preferred flame retardant is ammonium polyphosphate. Other flame retardants can be utilized therewith. Flame retardants are utilized in amount of 25-75 pbw of the adhesive (col. 2-3). Flame retardants are added to the adhesive composition using conventional methods such as ball milling.

Rubber resin comprises rubber such as natural rubber, BR, SBR, and PIB. Tackifying agents are also utilized and such include hydrogenated resin such as glyceryl esters, terpene

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resins, petroleum resins, cumarone-indine resin, phenolic resin, butene resin, silicon resins and the like (col. 4). Rubber and tackifying resins can be utilized in amount of 40-150 pbw per 100 parts of acrylic. Tackifying resins of PARSONS are utilized in the above amounts (col. 4, lines 18-26).

Acrylic component comprises copolymer or mixture of monomers having acrylic functionality. The monomers include acrylic acid, methacrylic acid, isooctylacrylate, acrylamide, methacrylamide, acrylonitrile, methacrylonitrile, methylasiamyl acrylate, 2-ethylhexa acrylate, and butylacrylate.

The adhesive composition can be applied onto a substrate utilizing conventional methods such as knife coating, rolling, extrusion, dipping and the like. The composition can be applied with solvent or 100 % solid.

In the light of the above disclosure the prior art of PARSONS anticipates claims rejected above.

3. Claims 1-3, 5-15, 19, 21-29 are rejected under 35 U.S.C. 102(a or e) as being anticipated by SAKURAI (US 6,893,583) or (US 2002/0193487) in view of evidence provided in US 6,488,958 to HIMMELSBACH.

SAKURAI discloses composition for flame retardant adhesive comprising flamer retardant, photoinitiator, monomers and additional resin.

Preferred flame retardant of SAKURAI is ammonium polyphosphate. Ammonium polyphosphate flame retardant can also be encapsulated in polymeric component. Ammonium polyphosphate is utilized in the amount of 25-75 pbw (claims).

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Acrylic polymer of SAKURAI is made from more than one acrylic monomer. Vinyl monomer 1) comprises one or mixture of the following: phenoxyethyl acrylate, phenoxydiethylene glycol acrylate, methoxyethyl acrylate, tripropylene glycol acrylate, isooctyl acrylate, 2-ethyle, hexyl methacrylate. Second monomer 5) is selected from the following: isobutyl acrylate, t-butyl acrylate, cyclohexyl acrylate, glycidyl methacrylate, trimethylolpropane triacrylate, ethylmethacrylate, methacrylic acid, 2-hydroxyethylmethacrylate and the like. Additional polymerizable vinyl monomers include: vinyl ether, divinyl ether, divinyl benzene, vinyl acetate, vinyl propionate, styrene, vinyl styrene, and vinyl pyrrolidone. Initiators include peroxides such as cumene hydrogen peroxide, benzoyl peroxide, t-butyl peroxybenzoate, MEK peroxide and the like. Although the molecular weight of the polymeric composition of the prior art is not disclosed it view of the components utilized in the composition it will overlap with the molecular weight required by the present invention. Components of the composition encompass the components of the present invention in amounts and types, the monomers are varied to provide proper tack to the polymer.

SAKURAI discloses use of compounds such as paraffins, waxes, lanolin and the like. These compounds are well known tackifiers in the art of adhesives (for support see US 6,488,958 to HIMMELSBACH col. 2, lines 32-34).

Rubber component of the SAKURAI is selected from acrylic based rubbers as well as diene rubbers, natural rubber and the like (col. 5). Rubber component is utilized in the amount of 5-50 pbw (col. 6).

In the light of the above disclosure the prior art of SAKURAI anticipates claims rejected above.

4. Claims 1-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over PARSONS (US 5,851,663) or SAKURAI (US 6,893,583 or US 2002/0193487) either one of which in view of NISHIMURA (US 2005/0227065).

The discussions of the disclosures of PARSONS or SAKURAI from paragraphs 5 or 6 of this office action are incorporated here by reference.

The difference between the present invention and the disclosure of PARSONS or SAKURAI is use of other monomers of acrylates as well as photoinitiators as well as specific molecular weight of the acrylic polymer.

With respect to the above difference, the prior art of NISHIMURA discloses flame retardant pressure sensitive adhesive comprising ammonium polyphosphate as flame retardant. The composition comprises mixture of two acrylic polymers. Epoxy polymer can also be utilized.

Monomers for the acrylic polymer include monomers required by the present claims including those being capable of photoinitiation. Photoinitiators of NISHIMURA are listed in [0049] and encompass the requirements of present invention.

Resulting polymer has molecular weight of 200,000 to 3,000,000. Above 3,000,000 the polymer will lose its ability to act in pressure sensitive adhesive capacity. The adhesive composition is deposited on PET film using conventional methods and it is tested.

Addition of monomers and photoinitiators to facilitate curing results in adhesive that has higher performance, higher flame retardancy, adhesiveness and reliability.

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In the light of the above disclosure, it would have been obvious to one having ordinary skill in the art at the time of the instant invention to utilize the teachings of NISHIMURA in either PARSONS or SAKURAI and thereby obtain the claimed invention. Such combination of disclosures would still afford acrylate based pressure sensitive adhesive.

In the response dated 4/19/2007 the applicants argued following:

a) The applicants referred the examiner to the response dated 1/24/2007 where it is indicated that the prior art of PARSONS required another compound, such as nitrogen containing oligomer. Applicants again pointed out that the present invention does not require additional compounds.

With respect to the above argument, the applicant's claim recite term "comprising". Required or not other components are allowed and therefore the prior art of PARSONS applies as a prior art against present claims.

b) The prior art of PARSONS does not require tackifying resin.

With respect to the above arguments, as taught and otherwise envisaged by PARSONS col. 4, lines 25-26, tackifiers are utilized in amount of 40-150 pbw per the amount of elastomer. The prior art of PARSONS teaches that the tackifiers are not necessary if the Tg of the polymers and the composition is below 0°C at ambient temperatures only. At this temperatures polymers are liquid hence no reason to use tackifiers. If the applicants look into Table I (col. 6) tackifier is utilized as part of the base composition, to which ammonium polyphosphates are added later on.

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c) The prior art of SAKURAI does not teach tackifying resins

With respect to the above arguments, and in view of evidence provided in US 6,488,958, paraffins and waxes as disclosed in SAKURAI are tackifying resins. Paraffins and waxes are clearly disclosed in the examples of SAKURAI.

d) The applicants indicated that no other monomers, photoinitiators or molecular weights could possible overcome the differences between the present invention and disclosures of the prior art.

With respect to the above argument and independent claims of the present invention, there are no differences that need to be overcome. NISHIMURA is utilized to provide for dependent claims.

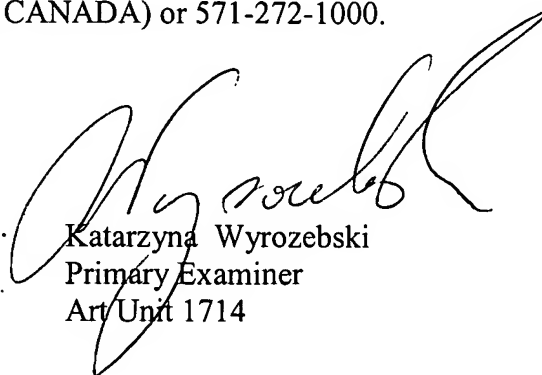
Note: The applicants amendment to claims 7 and 12 has been reconsidered in the light of the specification and thoroughly discussed. In view of the teachings in the specification, the examiner applied 112 rejection incorrectly. The applicants amendment incorporates new matter into claims 7 and 12. The examiner requests that the applicants re-state claims 7 and 12 as originally filed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katarzyna Wyrozebski whose telephone number is (571) 272-1127. The examiner can normally be reached on Mon-Thurs 6:30 AM-4:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Katarzyna Wyrozebski
Primary Examiner
Art Unit 1714

April 20, 2007